AMENDMENTS TO THE CLAIMS

1. **(CURRENTLY AMENDED)** An identification device including in a single coded layer first, second and third machine-readable identification codes arranged along length, width and height dimensional axes and each provided with coding elements ~~**extending**~~ **varying** along their respective dimensional axes**, including coding units smaller than 1 micrometer in at least one direction**.

2. **(ORIGINAL)** An identification device according to claim 1, wherein the first, second and third identification codes are located substantially orthogonal to one another.

3. **(PREVIOUSLY PRESENTED)** An identification device according to claim 1, wherein there is provided a fourth identification code which has a physical characteristic different from that of at least one of the first, second and third codes.

4. **(PREVIOUSLY PRESENTED)** An identification device according to claim 3, wherein the different physical characteristic includes one of a different chemical composition, electrical characteristic, magnetic characteristic, color and texture.

5. **(CANCELED)**

6. **(PREVIOUSLY PRESENTED)** An identification device according to claim 1, wherein the device has dimensions of the order of micrometers or less in at least two directions.

7. **(CANCELED)**

8. **(CURRENTLY AMENDED)** An identification device according to claim 1, wherein the device is not visible to the naked eye **at any distance**.

9. **(CURRENTLY AMENDED)** An identification device including first and second machine-readable identification codes arranged along different dimensional axes to one another, **these dimensional axes including a height axis,** said first and second codes not being visible to the naked eye **at any distance**, and a further machine-readable identification code which has a physical characteristic different from that of the first and second codes, **wherein at least one of the codes has coding units smaller than 1 micrometer in at least one dimension**.

10. **(CURRENTLY AMENDED)** A security device for an article, including on an exterior surface of the device a coded item having coding units ~~**of the order of nanometers**~~ **smaller than 1 micrometer** in at least one dimension.

11. **(PREVIOUSLY PRESENTED)** A security device according to claim 10, wherein the coded item is a barcode and the coding units are individual bars of the barcode.

12. **(PREVIOUSLY PRESENTED)** A security device according to claim 10, wherein the coded item provides a code in at least two dimensions.

13. **(PREVIOUSLY PRESENTED)** A security device according to claim 10, wherein the coded item provides a code within a single layer which includes first, second and third codes arranged along length, width and height dimensional axes.

14. **(CANCELED)**

15. **(CANCELED)**

16. **(CURRENTLY AMENDED)** An identification device according to claim 1 in combination with a detection apparatus, the detection apparatus comprising:

a. locating means for locating the identification device on an article,

b. at least one reading means separate from the locating means, wherein the reading means includes an atomic force microscope ~~**or other micro computerised measuring machine**~~, and

c. control means operable to control the reading means to read the codes.

17. **(PREVIOUSLY PRESENTED)** An identification device according to claim 1 provided on one of:

(1) a currency banknote, or

(2) a security paper.

18. **(PREVIOUSLY PRESENTED)** An identification device according to claim 1 provided on one of:

(1) a gemstone, or

(2) jewelry.

19. **(PREVIOUSLY PRESENTED)** An identification device according to claim 9 provided on one of:

(1) a currency banknote, or

(2) a security paper.

20. **(PREVIOUSLY PRESENTED)** An identification device according to claim 9 provided on one of:

(1) a gemstone, or

(2) jewelry.

21. **(CURRENTLY AMENDED)** An article including a machine-readable message thereon, the message encoding predetermined information, wherein the message is defined by elements which:

a. are sized**:**

(1) sufficiently small to be invisible to the naked eye **at any distance, and**

(2) **smaller than 1 micrometer in at least one direction**,

b are arrayed along the article,

c. protrude from the surface of the article, and

d. vary in one or more machine-readable characteristics, wherein such variation in characteristics encodes the predetermined information.

22. **(PREVIOUSLY PRESENTED)** The article of claim 21 wherein the elements have at least substantially similar shape but vary in one or more of their:

(1) spacing,

(2) height dimensions,

(3) width dimensions, and

(4) length dimensions,

wherein such variation encodes the predetermined information.

23. **(NEW)** An identification device according to claim 1, including on an exterior surface of the device a coded item having coding units smaller than one of 500 μm, 10 μm or 20 μm in at least one direction other than the direction in which the coding units are smaller than one micrometer.

24. **(NEW)** An identification device according to claim 1, wherein the coding units comprise one of polymer and cross-linked polymer.

25. **(NEW)** An identification device according to claim 1, comprising contiguous coding units of different heights.

26. **(NEW)** An identification device according to claim 1, wherein the cording units are formed by one of: mask imprinting, nano-imprint lithography, hot embossing, cold embossing, UV curing during embossing, cold embossing in metal, and direct embossing in silicon.

27. **(NEW)** An identification device according to claim 1, comprising coding units, formed of a polymer, on a semiconductor substrate that does not reflect infra-red.

28. **(NEW)** An identification device according to claim 9, including on an exterior surface of the device a coded item having coding units smaller than one of 500 μm, 10 μm or 20 μm in at least one direction in at least one direction other than the direction in which the coding units are smaller than one micrometer.

29. **(NEW)** An identification device according to claim 9, wherein the coding units comprise one of polymer and cross-linked polymer.

30. **(NEW)** An identification device according to claim 9, comprising contiguous coding units of different heights.

31. **(NEW)** An identification device according to claim 9, wherein the cording units are formed by one of: mask imprinting, nano-imprint lithography, hot embossing, cold embossing, UV curing during embossing, cold embossing in metal, and direct embossing in silicon.

32. **(NEW)** An identification device according to claim 9, comprising coding units, formed of a polymer, on a semiconductor substrate that does not reflect infra-red.

33. **(NEW)** An article according to claim 21, wherein the elements are smaller than at least one of 500 μm, 10 μm or 20 μm in at least one direction in at least one direction other than the direction in which the elements are smaller than one micrometer.

34. **(NEW)** An article according to claim 21, wherein the elements comprise one of polymer and cross-linked polymer.

35. **(NEW)** An article according to claim 21, comprising contiguous elements of different heights.

36. **(NEW)** An article according to claim 21, wherein the elements are formed by one of: mask imprinting, nano-imprint lithography, hot embossing, cold embossing, UV curing during embossing, cold embossing in metal, direct embossing in silicon.

37. **(NEW)** An article according to claim 21, comprising elements formed of a polymer, on a semi-conductor substrate that does not reflect infra-red.